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A/Aichi/69/94-M2-H3N2                MSLLTEVETPIRNEWECRCNGSSD
A/Gifu/2/95-M2-H3N2                  MSLLTEVETPIRNEWECRCNGSSD
A/Ibaraki/1/95-M2-H3N2               MSLLTEVETPIRNEWECRCNGSSD
A/Kagoshima/10/95-M2-H3N2            MSLLTEVETPIRNEWECRCNGSSD
•A/Niigata/124/95-M2-H3N2            MSLLTEVETPIRNEWECRCNGSSD
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A/Tochigi/44/95-M2-H3N2              MSLLTEVETPIRNEWECRCNGSSD
A/Akita/1/95-M2-H3N2                 MSLLTEVETPIRNEWECRCNGSSD
A/Hebei/19/95-M2-H3N2                MSLLTEVETPIRNEWECRCNGSSD
A/Sendai/c373/95-M2-H3N2             MSLLTEVETPIRNEWECRCNGSSD
A/Osaka/c1/95-M2-H3N2                MSLLTEVETPIRNEWECRCNGSSD
A/FORT-WARREN/1/50-M2-H1N1           MSLLTEVETPIRNEWGCRCNDSSD
A/USSR/90/77-M2-H1N1                 MSLLTEVETPIRNEWGCRCNDSSD
A/Aichi/2/68-M2-H3N2                 MSLLTEVETPIRNEWGCRCNDSSD
A/Port-Chalmers/1/73-M2-H3N2         MSLLTEVETPIRNEWGCRCNDSSD
A/Udorn/72-M2-H3N2                   MSLLTEVETPIRNEWGCRCNDSSD
A/SINGAPORE/1/57-M2-H2N2             MSLLTEVETPIRNEWGCRCNDSSD
A/ANN-ARBOR/6/60-M2-H2N2             MSLLTEVETPIRNEWGCRCNDSSD
A/Korea/426/68-M2-H2N2               MSLLTEVETPIRNEWGCRCNDSSD
A/Leningrad/134/57-M2-H2N2           MSLLTEVETPIRNEWGCRCNDSSD
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A/Fukushima/140/96-M2-H3N2           MSLLTEVETPIRNEWGCRCNDSSD
A/Akita/1/94-M2-H3N2                 MSLLTEVETPIRNEWGCRCNDSSD
A/Guangdong/39/89-M2-H3N2            MSLLTEVETPIRNEWGCRCNDSSD
A/Kitakyushu/159/93-M2-H3N2          MSLLTEVETPIRNEWGCRCNDSSD
A/Memphis/8/88-M2-H3N2               MSLLTEVETPIRNEWGCRCNDSSD
A/Miyagi/29/95-M2-H3N2               MSLLTEVETPIRNEWGCRCNDSSD
A/Niigata/137/96-M2-H3N2             MSLLTEVETPIRNEWGCRCNDSSD
A/Shiga/20/95-M2-H3N2                MSLLTEVETPIRNEWGCRCNDSSD
A/Sendai/c384/94-M2-H3N2             MSLLTEVETPIRNEWGCRCNDSSD
A/H3N2/NY/83-M2-H3N2                 MSLLTEVETPIRNEWGCRCNDSSD
A/Sendai/c182/94-M2-H3N2             MSLLTEVETPIRNEWGCRCNDSSD
A/Shiga/25/97-M2-H3N2                MSLLTEVETPIRNEWGCRCNDSSD
A/Hebei/12/93-M2-H3N2                MSLLTEVETPIRNEWGCRCNDSSD
A/WSN/33-M2-H1N1                     MSLLTEVETPIRNEWGCRCNDSSD
A/Puerto-Rico/8/34-M2-H1N1           MSLLTEVETPIRNEWGCRCNGSSD
                                     *************** ****.***
```

Figure 1

MET SER LEU LEU THR GLU VAL GLU THR PRO ILE
A T G A G C C T T C T A A C C G A G G T C G A A A C . . . A C C T A T
T A C T C G G A A G A T T G G C T C C A G C T T T G . . . T G G A T A
10 20 720

ARG ASN GLU TRP GLU CYS ARG CYS ASN GLY
C A G A A A C G A A T G G G A G T G C A G A T G C A A C G G
G T C T T T G C T T A C C C T C A C G T C T A C G T T G C C
730 740 750

SER SER ASP *PRO LEU VAL VAL ALA ALA SER*
T T C A A G T G A C *C C G C T T G T T G T T G C T G C G A G*
A A G T T C A C T G *G G C G A A C A A C A A C G A C G C T C*
760 *770* *780*

ILE ILE GLY ILE LEU HIS LEU ILE LEU TRP
T A T C A T T G G G A T C T T G C A C T T G A T A T T G T G
A T A G T A A C C C T A G A A C G T G A A C T A T A A C A C
790 *800* *810*

ILE PHE ASP ARG LEU PHE PHE LYS CYS ILE
G A T T T T T G A T C G T C T T T T T T T C A A A T G C A T
C T A A A A A C T A G C A G A A A A A A A G T T T A C G T A
820 830 840

TYR ARG LEU PHE LYS TYR GLY LEU LYS ARG
C T A T C G A C T C T T C A A A T A C G G T C T G A A A A G
G A T A G C T G A G A A G T T T A T G C C A G A C T T T T C
850 860 870

GLY PRO SER THR GLU GLY VAL PRO GLU SER
A G G G C C T T C T A C G G A A G G A G T A C C T G A G T C
T C C C G G A A G A T G C C T T C C T C A T G G A C T C A G
880 890 900

MET ARG GLU GLU TYR ARG LYS GLU GLN GLN
T A T G A G G G A A G A A T A T C G A A A G G A A C A G C A
A T A C T C C C T T C T T A T A G C T T T C C T T G T C G T
910 920 930

ASN ALA VAL ASP ALA ASP ASP SER HIS PHE
G A A T G C T G T G G A T G C T G A C G A C A G T C A T T T
C T T A C G A C A C C T A C G A C T G C T G T C A G T A A A
940 950 960

VAL SER ILE GLU LEU GLU ***
T G T C A G C A T A G A G C T G G A G T A A
A C A **G T C G T A T C T C G A C C T C A T T**
970 980

Figure 2

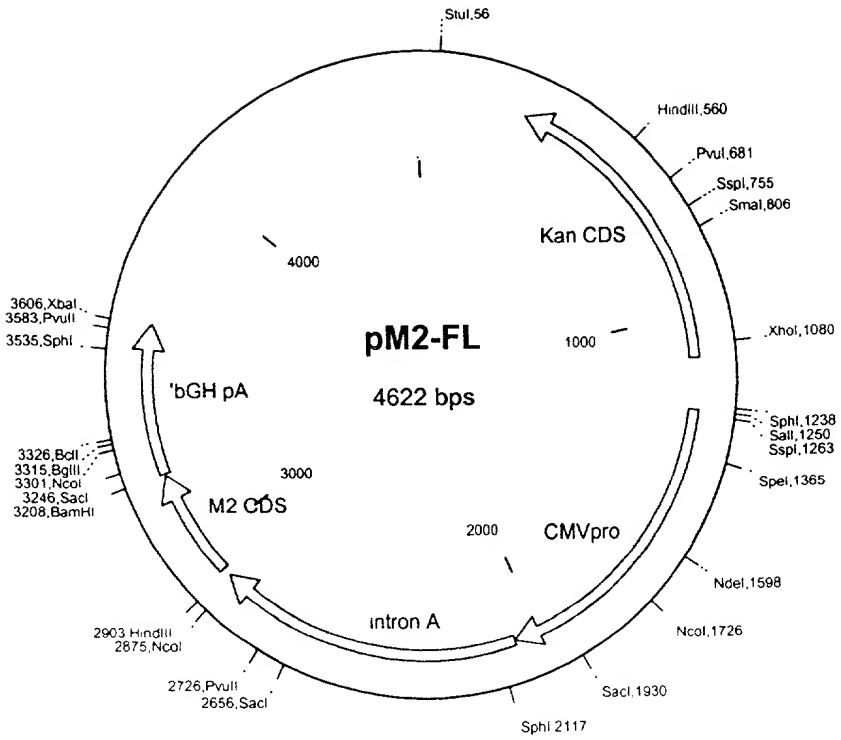
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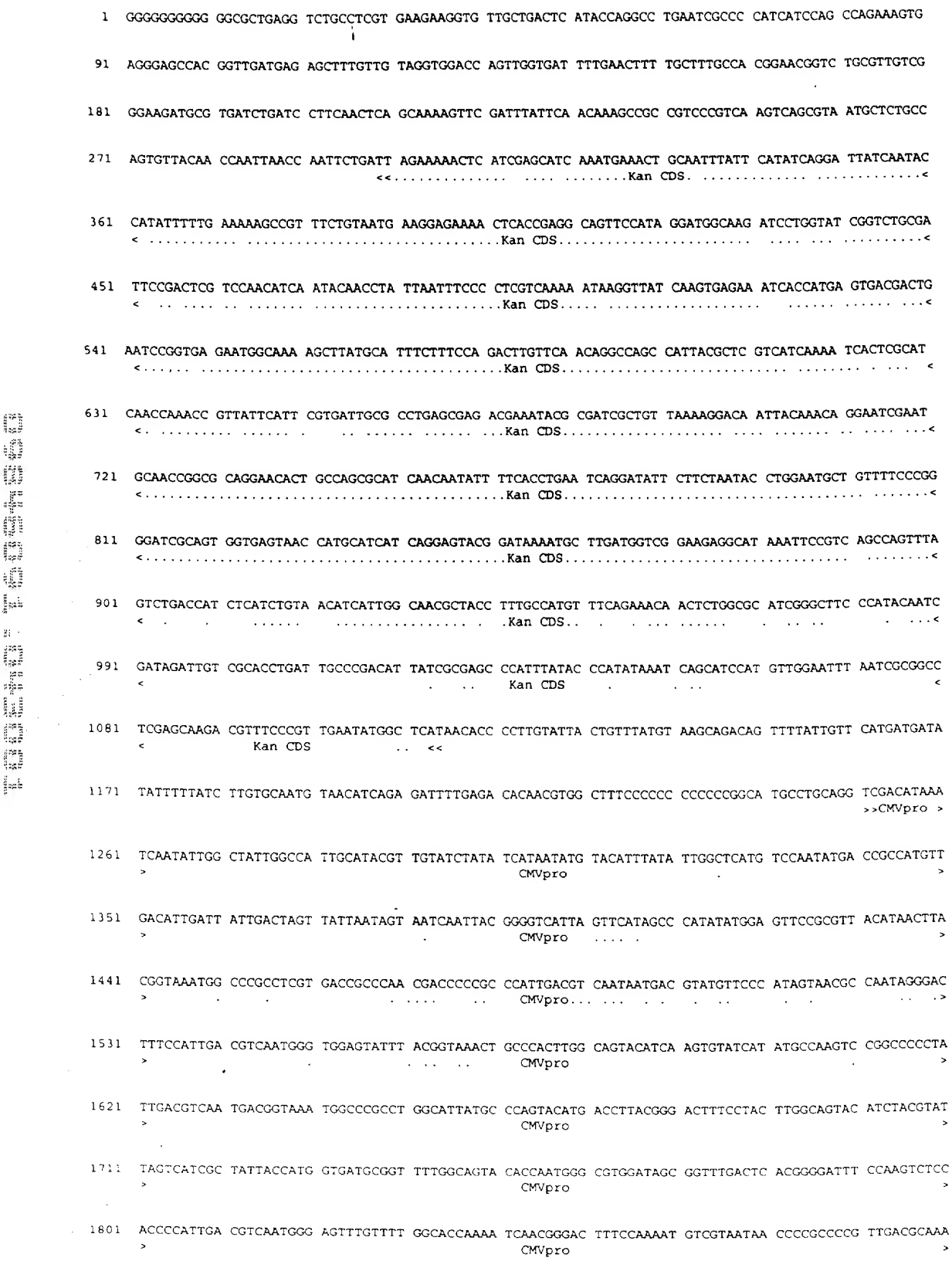
Figure 3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Kan CDS
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Kan CDS
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Kan CDS
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Kan CDS
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Kan CDS
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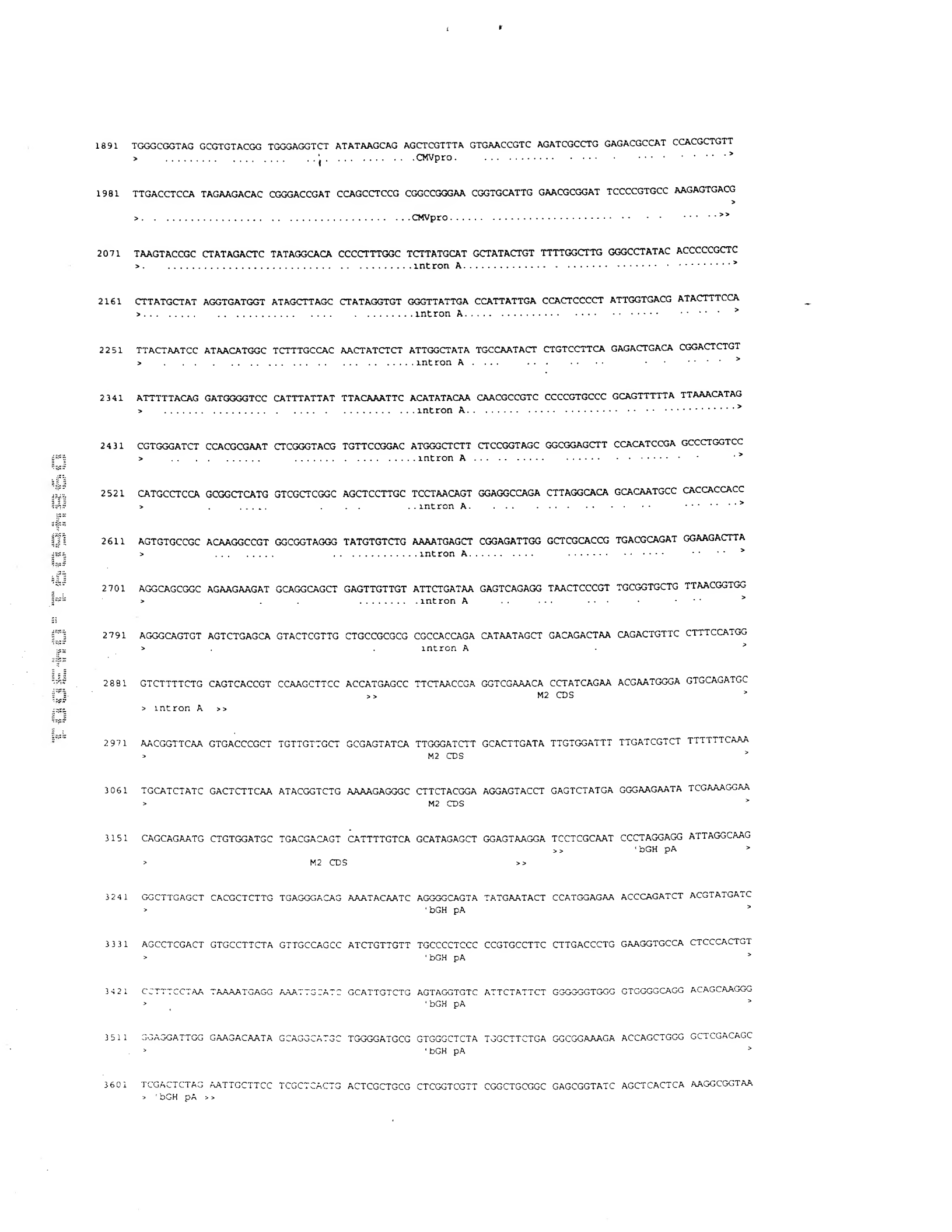
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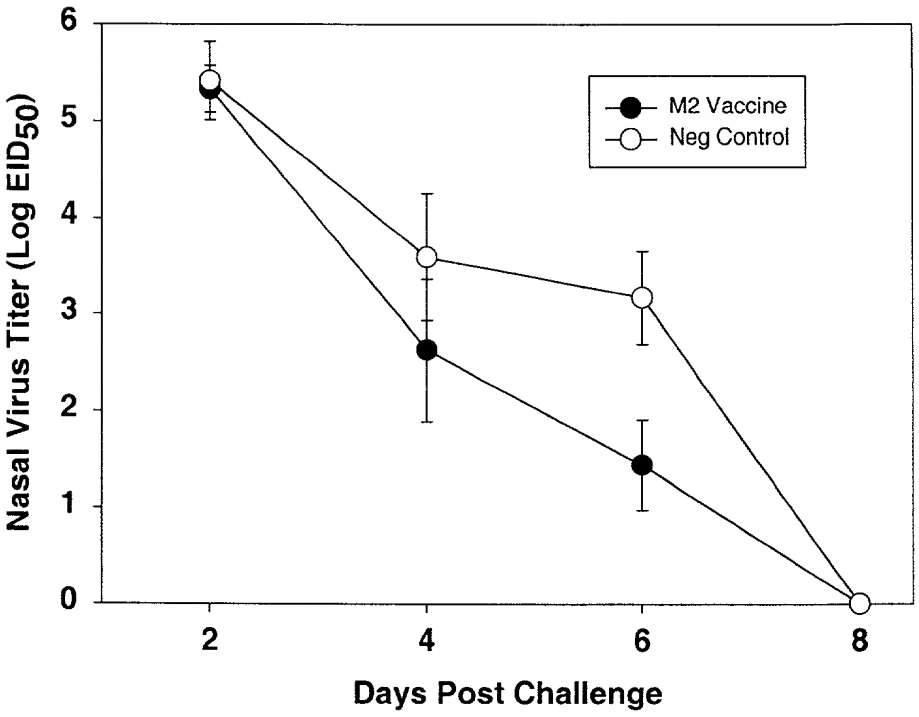
Figure 4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6
5
4
3
2
1
0
2
4
6
8
Days Post Challenge
M2 Vaccine
Neg Control

Figure 5